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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,490	03/04/2002	Wayne Eric Burk	5181-83900	5066

7590 12/31/2003  
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EXAMINER

MONESTIME, MACKLY

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,490

Applicant(s)

BURK ET AL.

Examiner

Mackly Monestime

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10-12, 21, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 2-9, 13-20 and 22-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

DETAILED ACTION

1. Claims 1-28 are presented for examination.

*Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 22-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. As per claim 22, lines 3-4 recite the limitations “ the first indication”. There is insufficient antecedent basis for this limitation in the claim.

5. As per claims 23-26, they are also rejected for incorporating the deficiencies of their base claim.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seiler et al. (US Patent No. 4,929,889) in view of Fruehling et al (US Patent No. 6,625,688).

8. As per claims 1, 10 and 21, Seiler et al substantially disclosed the invention as claimed, including a computer system comprising: a host computer system (Fig. 1, Item No. 4); a first component configured to output data, wherein the data includes requested data and unrequested data; a second component configured to request data from the first component, wherein the second component includes a signature analysis register configured to capture data (Fig. 4; col. 2, lines 55-59; col. 6, lines 24-28), wherein the signature analysis register is configured to be controlled by the host computer system (col. 3, lines 48-51); a bus coupling the first component and the second component and configured to transmit data between the first component and the second component (Fig. 4, Item No. 200)

Seiler et al did not explicitly disclose a controller coupled to receive the data and the unrequested data output by the first component, wherein the controller configured to receive the data output by the first component in response to the second component's request, wherein the controller is configured to replace the unrequested data with predictable data and to output the predictable data and the requested data, wherein the signature analysis register is configured to capture the predictable data and the requested data; but Seiler et al did disclose the use of a VCPU 16 / CFPA 22 to form the main controller of the graphics subsystem (Fig. 1, Item No. 6); and further disclosed a load control unit to control that properly directs the loading of data into various registers (Fig. 4, Item No. 207), a control register providing means for specifying the set of test points to be tested (col. 10, lines 33-35). However, Fruehling et al disclosed a method for analysis of the operation of a microcontroller using signature analysis, in which a controller is used to control the operation of stand alone module for parallel signature analysis (col. 9, lines 28-30), and generating a fault signal when the reference signature is unequal to the second

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signature (col. 5, lines 48-50). Therefore, taking the combined teachings of Fruehling et al and Seiler et al as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the controller taught by Fruehling et al into the system of Seiler et al because doing so would place a minimum burden on the host CPU by allowing the controller to control reading of operation codes from the memory during normal operation of the CPU, thereby enhance the overall processing of the system.

9. As per claim 11, Seiler et al disclosed that the first component includes a frame buffer (Fig. 2, Item No. 24), and the second component includes a hardware accelerator (Fig. 2, Item No. 40).

10. As per claim 12, Seiler et al disclosed the first component includes a media processor (Fig. 2, Item No. 16) and the second component includes a hardware accelerator (Fig. 2, Item No. 40).

### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 21, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Seiler et al (US Patent No. 4,929,889).

13. As per claim 21, Seiler et al disclosed the invention as claimed, including a method of performing signature analysis: a requesting device requesting data; a providing device data in

response to said requesting; wherein the data comprises requested data and unrequested data (col. 2, lines 55-59; col. 6, lines 24-28); replacing the unrequested data with predictable data, wherein the predictable data has a predictable value; and a signature analysis register in the requesting device capturing the predictable data and the requested data (col. 2, lines 40-45; col. 6, lines 33-50).

14. As per claim 27, Seiler et al disclosed that each bit included in the predictable data has a logical value of zero (col. 7, lines 37-43).

15. As per claim 28, Seiler et al disclosed that buffering the data provided by the providing device in a data queue before the data output on a bus (Fig. 2, Items No. 24, 29), wherein replacing comprises replacing the unrequested data output from the data queue and outputting the predictable data and the requested data on the data bus (col. 4, lines 50-64).

***Allowable Subject Matter***

16. Claims 2-9 and 13-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The prior art of record further failed to teach or render obvious the combination of elements recited in the claim. The cited references did not specifically disclose or suggest the following limitations: “wherein the controller is configured to store an indication identifying the requested data in response to the second component requested data from the first component, wherein the controller is configured to select which of the data output by the first component is unrequested data dependent on the indication” (as per claims 2 and 13). The above limitations of

the present claims invention have not found to be anticipated, suggested or made obvious by the prior art of record, either singularly or in combination.

18. Claims 22-26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

19. The prior art of record further failed to teach or render obvious the combination of elements recited in the claim. The cited references did not specifically disclose or suggest the following limitations: "storing an indication identifying the requested data in response to said requesting device requesting data, wherein said replacing comprises selected the unrequesting data for replacement dependent on the first indication" (as per claim 22). The above limitations of the present claims invention have not found to be anticipated, suggested or made obvious by the prior art of record, either singularly or in combination.

### *Conclusion*

Applicant is required to give full consideration to these prior art references when responding to this office action.

Tuttle (US Patent No. 5,153,886) taught a visual display signal processing system and method.

Iwase et al (US Patent No. 6,651,196) taught a semiconductor device having test mode entry circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mackly Monestime whose telephone number is (703) 305-3855.

The examiner can normally be reached on Monday to Thursday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bella Matthew, can be reached on (703) 308-6829.

**Any response to this action should be mailed to:**

Commissioner of Patent and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Va, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Mackly Monestime

  
Patent Examiner

December 17, 2003



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600